

Notice of Allowability

Application No.

09/829,296

Examiner

Dah-Wei D. Yuan

Applicant(s)

KAITO ET AL.

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/20/04.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ The drawings filed on 09 April 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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NON-AQUEOUS ELECTROLYTE RECHARGEABLE BATTERY

Examiner: Yuan S.N. 09/829,296 Art Unit: 1745 March 31, 2004

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 20, 2004 has been entered. Claims 1,2,6 were amended. Claims 8-12 were added.

2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on July 15, 2003.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

4. Authorization for this examiner's amendment was given in a telephone interview with Mr. Herbert F. Ruschmann on March 31, 2004. The application has been amended as follows:

In claim 1, line 7, after "attached" add "externally"

Claim Rejections

5. The claim rejections under 35 U.S.C. 102(e) as anticipated by Quinn et al. on claims 1-3 are withdrawn because the independent claim 1 has been amended.

Reasons for Allowance

6. Claims 1-12 are allowed. The invention of independent claim 1 recites a non-aqueous electrolyte rechargeable battery comprising a positive electrode, a negative electrode, a battery case, a switch element attached externally to the battery case, wherein the switch element completing a charging path to an external power source in the initial state of operation in response to a first change in temperature of the battery and establishing a short circuit across the positive electrode and the negative electrode in a second state of operation, the switch element further operating to return to the initial state in response to a second change in temperature of the battery opposing that of said first change in temperature. The closest prior art of record, Quinn et al., only teaches the use of a switch element having closed and open positions in response to either an elevated temperature or an excessive pressure within a battery. The switch is a bimetal material or shape memory, which connects a terminal plate and a fixed contact in response to an elevated temperature as shown in Figures 22-24. The invention of independent claims 4 and 5 recites a non-aqueous electrolyte rechargeable battery comprising an electrode of first polarity, an electrode of second polarity, a battery case, and a closure assembly including an external terminal, an internal terminal, a switch element and a ring shaped conductive element. The switch element is responsive to a first temperature change to break connection to the external

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terminal and effect electrical contact with the ring shaped conductive element to establish a second state of operation, breaking electrical connection between the battery and an external power source and establishing a short circuit to cause the battery to discharge. The closest prior art of record, Quinn et al., does not teach the switch element is responsive to a first temperature change by breaking connection to the external terminal and effect electrical contact with the ring shaped conductive element to establish a second state of operation, breaking electrical connection between the battery and an external power source and establishing a short circuit to cause the battery to discharge as stated in the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dah-Wei D. Yuan whose telephone number is (571) 272-1295. The examiner can normally be reached on Monday-Friday (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

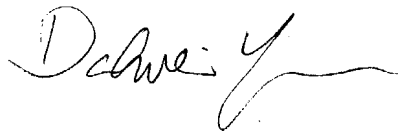
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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dah-Wei D. Yuan
March 31, 2004

A handwritten signature in cursive script, appearing to read "Dahwei Y", with a long horizontal flourish extending to the right.